

## A Comparison of Domestic and Imported Feeder Calf Costs

	Israeli beef herd calf	Dairy calves by air from Hungary	Large beef calves by sea from Australia	Small beef calves by air from OH	Large beef calves by sea from OH	Large dairy calves by air from OH
<b>Weight (lbs)</b>	528	176	528	325	528	350
(kg)	240	80	240	148	240	160
<b>Purchase price (per hundredweight [CWT])</b>	\$133.00	\$131.00	\$118.18	\$110.00	\$110.00	\$86.00
(per head)	\$725.00	\$231.00	\$624.00	\$358.00	\$581.00	\$302.00
(per kg)	\$3.00	\$2.89	\$2.60	\$2.42	\$2.42	\$1.89
(per lb)	\$1.37	\$1.31	\$1.18	\$1.10	\$1.10	\$0.86
<b>Land transport/port charges (per head)</b>	Not applicable	Unknown	\$30.00	\$15.00	\$15.00	\$7.00
<b>Pre-conditioning/Vet costs (per head)</b>	Not applicable	\$80.00	\$80.00	\$67.50	\$67.50	\$67.50
<b>International transport (per head)</b>	Not applicable	\$50.00	\$140.00	\$350.00	\$250.00	\$444.00
<b>Insurance (per head)</b>	Not applicable	\$10.00	\$15.00	\$10.00	\$15.00	\$15.00
<b>Israeli port &amp; quarantine cost</b>	Not applicable	\$70.00	\$15.00	\$70.00	\$70.00	\$70.00
<b>Loss &amp; importer profit</b>	Not applicable	\$50.00	\$60.00	\$50.00	\$50.00	50.00
<b>TOTAL</b>	\$725.00	\$391.00	\$964.00	\$920.50	\$1,049.00	954.50
<b>Added feed to 240 kg</b>	0	\$150.00	0	\$92.00	0	90.00
<b>TOTAL @ 240 kg (per head)</b>	\$725.00	\$541.00	\$964.00	\$1,012.50	\$1,049.00	1,045.50
(per kg)	\$3.00	\$2.25	\$4.01	\$4.22	\$4.37	4.18
(per lb)	\$1.37	\$1.02	\$1.83	\$1.92	\$1.99	1.90

### Notes

#### Exchange rates

Exchange rates used: \$1 = 4.4 Israeli shekels; €81; 1.36 Australian \$

#### Calf prices

##### Israeli domestic herd

Calves are priced at 2,350 shekels (\$511) for 100 kg plus 6 shekels (\$1.36) for each additional kg (1). (One year ago they cost 2,250 shekels for 100 kg plus 6 shekels for each additional kg.) Calves sold to third parties are sold immediately after weaning (about 200-250 kg). Most calves are held by beef herd owners in pasture and in their own feed lots (2).

##### Hungarian dairy calves

- Bought in Hungary by Israeli importers for €2.30/kg (\$2.89/kg or \$1.31/lb). Sold to Israeli feedlots for \$302/head at 55-60 kg (\$5.49/kg or \$2.50/lb) (2). As of Oct 2004: calves cost 1,450 shekels (\$330) per head to 55 kg, then 12 shekels/kg (\$2.73/kg or \$1.24/lb) up to 80 kg (176 lb) (1).
- Conditioning and veterinary costs in Hungary are included in the f.o.b. price. (Veterinary costs are estimated by the Israeli importer be about \$40 a head.) (2)
- Air freight costs from Hungary are approximately \$80,000 per chartered flight, which can load 105 tons net cattle weight (plus cages.) For these calculations, transport costs are \$0.80/kg live weight (mixed loads of larger and small calves.) (2)
- Insurance and Israeli quarantine costs are estimated by the Israeli importer. Israeli quarantine costs can double when there is a foot and mouth outbreak, and longer quarantine periods are required (2).

#### Hungarian beef calves

- Hungarian mixed beef calves are bought in Hungary by Israeli importers for €2/kg (\$2.51/kg or \$1.14/lb). They are sold to Israeli feedlots for \$648/head at 180 kg (3.60/kg or \$1.63/lb) (2). As of Oct 2004: calves cost \$1,850 shekels (\$420)/head to 70 kg (154 lbs). (1)
- These larger calves were sold to feed lots by importers at 2,900 shekels (\$660) per head at 180 kg. Transport and associated import costs, estimated by the importer, are comparable to the lighter dairy calf imports (2).

#### Australian high-quality beef calves

- High-quality Angus calves from Australia are bought from the Jordanian importer at the border crossing for \$2,600/ton (\$2.60/kg or \$1.18/lb) (3). October 2004: Cost 11 shekels (\$2.50)/kg or \$1.14/lb (1).
- Local transport (in Israel), veterinary, and quarantine costs add another \$75/head (3).
- The pre-c.i.f. costs (purchase price, transport, and insurance) were estimated for these calculations. The live-weight purchase price for high-quality steers in Australia was reported at \$1.85 Australian in early 2004 (3).
- The one trader active in this market buys cattle in Australia and transports them on ships owned or under long-term lease by the trader. Thus actual transport costs are not available, and the prices in these calculations are deduced from selling prices. Transport using third-party ships at market prices would likely be more expensive (3).

#### Australian low-quality beef calves

- Cost: \$450/head at the same border crossing.
- Low prices reported in the Australian market were \$1.50 Australian per kg live weight.
- Most of these calves are sold in the Palestinian Authority directly for slaughter. Some are sold to Israeli feedlots for <\$500 per head (3)

#### Ohio beef calves

- Beef steers, at 300-350 lbs (140-160 kg), sell for \$105 to \$115/100 lbs (\$1.05-\$1.15/lb or \$2.31-\$2.53/kg). (Lahmers et al.) At 500- 600 lbs (227-272 kg), they sell for \$.75-\$1.18/lb (\$1.65-\$2.60/kg) (4)
- Actual prices may differ, if cattle prices change with time and whether purchased at market rates or under contract. Although there can be considerable price volatility from week to week, average calf prices haven't changed appreciably over the past year. (They were about the same in October 2004 as they were in September 2003, according to the Muskingum Livestock exchange in Zanesville, OH ([www.muskingumlivestock.com/cattle\\_market\\_report.htm](http://www.muskingumlivestock.com/cattle_market_report.htm)))

#### Ohio Holsteins

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- Holsteins, at 300-400 lbs (140-180 kg), sell for \$77-\$93/100 lbs (\$.77-\$.93/lb or \$1.69-\$2.05/kg).
- Holsteins, at about 100 lbs (45 kg) when a few days old, sell for \$100-\$150 a head. They gain about 2 lbs (.9 kg) per day, but this can be adjusted (4).
- It takes four weeks to wean Holsteins onto dry feed. An entire shipment of 250-lb Holstein or Holstein/beef mixed calves could be ready in 12 weeks (4).

### **Feeding costs**

Feeding costs per kg of additional live weight increase as the calves grow from \$1 to \$1.50 per incremental kg. We used \$1/kg for these calculations.

### **Shipping**

#### Air shipping Ohio calves

- A 747-400 can hold up to 678 250-lb calves. Shipping cost is \$265,000, or \$390/head.
- Flying 500-600 head of 300-400-lb feeder calves may cost around \$200,000, including crates, or \$333-400/head (5).
- FedEx: The lowest cost per head for 350 calves shipped to Israel by air is using a FedEx MD-11. It can carry 550 calves averaging 350 pounds using the Instone penning system. A charter from Dayton to Israel costs \$295,000 or \$527/head. A 550 350-lb calves weigh 192,500 lbs, which corresponds to 770 250-lb calves, or \$383/head.
- El-AI: One pallet can carry 15-22 160-kg (350-lb) calves. The shipping cost is \$6,000 per pallet, plus a \$.45/kg fuel and security surcharge. Example: 1 pallet of 22 350-lb calves would cost \$6,000 plus \$1,548, or \$7,548. The cost is about \$340/head.

#### Ocean shipping Ohio calves

- 1,000 head @ 1,000 lbs each (or possibly 2,000 head at smaller size): \$250,000
- 3,000 head @ 1,200 lbs each (or possibly 5,000 head at smaller size): \$500,000
- Shipping time is 18-21 days (5).

- (Shipping from Australia to Eilat takes 16 days. But many develop lung problems in transit, reducing the % of kosher calves [1].)
- Dens Ocean Transport and Shipping (8) has one vessel with a capacity of about 1,500 cattle of 200 kg (441 lbs), and another vessel could take about 3,300 cattle of the same size. Shipments to the Mediterranean Sea normally depart from an East Coast port, such as Philadelphia, PA or Richmond, VA. They are not equipped to travel in the Great Lakes. Costs:
  - 1,000 head @1,000 lbs each (or possibly 2,000 head at smaller size): \$250,000, or \$125-\$250/head
  - 3,000 head @ 1,200 lbs each (or possibly 5,000 head at smaller size): \$500,000, or \$100-\$167/head.
  - There may be additional costs associated with ocean transport, including an ocean port quarantine that also supplies the feed to go on the ship, medications and possibly other hidden costs.

#### **In-state transport**

Shipping from individual farms to Baker's farm for preconditioning, and from Baker's farm to the airport: \$12-15/head, in a "possum-belly" trailer semi-truck. Assumes about 400 miles of travel (5).

#### **Pre-conditioning**

- About \$1.50/day per calf, for about 45 days
- Entails vaccinations and co-mingling in one central location before shipping.
- Calves would probably gain little weight during the first 20 days. After that, they're likely to gain up to 2-4 lbs a day, or up to 50-100 lbs each during preconditioning (5)

#### **Loss & importer profit**

Loss refers to calf mortality (& morbidity, reducing the % of kosher calves) in transit

#### **Assumptions**

- The price of a bull calf is the same as the price of a steer calf
- Calf prices provided by Lahmers et al. (4) were for small calves, since their weight of 300-350 pounds was closer to the 220 pounds of the small calves in Dvoskin & Cohen (2) data.
- We added in the costs of feeding up to 250 kg using Cohen et al. (3) \$1/kg figure. We revised the Eastern European number to take this into account.
- The \$75 veterinary cost is based on costs associated with the Australian protocols.

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